

Response

Claim Rejections 35 USC §112, second paragraph

Claim 4 stands rejected for insufficient antecedent support. Claim 4 has been amended to depend from claim 3 wherein proper antecedent support is found. The rejection of claim 4 is overcome by amendment.

Claim 5 stands rejected as being indefinite. Claim 5 has been amended for clarity. The aqueous solution referred to in claim 5 is required to provide meaning to the measurement of viscosity. It is well known in the art that viscosity is dependent on both concentration and solution. Therefore, to properly recite a preferred viscosity these parameters must be included. In an effort to advance the claim to allowance, claim 5 has been amended to more clearly set forth the measurement parameters. The rejection of claim 5 has been overcome by amendment.

The rejections of claims 4 and 5 under 35 U.S.C. § 112, second paragraph, have been overcome by amendment and removal of the rejection is respectfully requested.

Claim Rejections 35 USC §102

Claims 1-3 and 6-8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Mochizuki et al. (U.S. Patent No. 6,238,784).

Mochizuki et al. is cited as teaching that silica or silicate particles dispersed in a cation-modified polyvinyl alcohol inherently produce silanol modified polyvinyl alcohol. Applicants respectfully disagree with this argument and opine that the silanol modified polyvinyl alcohol is not taught in Mochizuki et al.

The cation-modified polyvinyl alcohol is defined in Col. 5, lines 4-6 of Mochizuki et al., as being obtained by saponification of a copolymer of vinyl acetate and an ethylenically unsaturated monomer having a cationic group. This results in a compound with a specific cation.

The silanol-modified polyvinyl alcohol of the present invention is described on page 7 of the specification as a copolymerization of polyvinyl alcohol using silanes. This results in a copolymer comprising a silanol group. The copolymer described as a silanol-modified polyvinyl alcohol of the present invention is different from the cation-modified polyvinyl alcohol of Mochizuki et al.

Mochizuki et al. fails to teach a silanol-modified polyvinyl alcohol as set forth in claim 1. Therefore a rejection of claim 1 under 35 U.S.C. 102(e) as being unpatentable over Machizuki et al. is improper and removal is respectfully requested.

Claims 2-3, and 6-8 ultimately depend from claim 1 and are patentable for the same reasons as claim 1. Removal of the rejection of claims 2-3 and 6-8 is respectfully requested.

Claim Rejections 35 USC §103

Claims 1, 4-5 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Niemoller et al. (U.S. Patent No. 5,853,540) and further in view of Nordeen et al. (U.S. Patent No. 6,022,440).

Mochizuki et al. fails to teach the invention as set forth previously. Mochizuki et al. fails to teach, at least, the silanol-modified polyvinyl alcohol.

Niemoller is cited as teaching specific particle sizes of silica which are lacking in the teaching of Mochizuki et al. A teaching of specific particle sizes does not mitigate the deficiencies of Mochizuki et al. since the deficiencies include a lack of teachings to the silanol-

modified polyvinyl alcohol. Mochizuki et al. and Niemoller, taken together, fail to teach the invention as set forth in claim 1 and, even more so, fail to teach the invention set forth in claims 4-5 and 9-15 all of which ultimately depend from, and further limit, claim 1.

The Office contends that, since Mochizuki et al. teaches the same silanol modified polyvinyl alcohol, it is obvious that the modification degree of modified polyvinyl alcohol would be expected to exhibit a silanol modification degree between 0.1 to 10 percent. Applicants respectfully disagree with the premise as set forth previously. It can not be held to be obvious to obtain a specific silanol modification degree from a compound which is not a silanol-modified polyvinyl alcohol as set forth in the specification. The argument set forth by the Office fails due to a faulty premise and removal of the rejection based on this argument is requested.

Niemoller is further cited as teaching the cationic substance of claim 10. Regardless of this teaching, even if correct, Niemoller fails to mitigate the deficiencies of Mochizuki et al. Teachings which are specific to an additional substance are inconsequential to the arguments at hand. Claim 10, which depends from claim 9, teaches additional substances in the ink jet recording element recited in claim 1. Claim 1 is neither anticipated, nor rendered obvious, by Mochizuki et al. alone or in combination with Niemoller.

The invention set forth in claims 1, 4-5 and 9-15 are patentable over Mochizuki et al. taken in view of Niemoller since the cited references fail to teach the combination of elements taken together to form the claimed element.

Removal of the rejection of claims 1, 4-5 and 9-15 under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Niemoller is respectfully requested.

With regards to claims 11-13 and 15, the Office contends that Nordeen teaches specific adhesive polymers which are not disclosed in Mochizuki et al. Nordeen does not mitigate the

deficiencies of Mochizuki et al. which includes the lack of teachings of a silanol-modified polyvinyl alcohol. Even if one combined the teachings of Mochizuki et al. and Nordeen the combination of references would still lack teachings of a silanol-modified polyvinyl alcohol and the use of such in the claimed ink jet recording element.

Removal of the rejection of claims 11-13 and 15 as being unpatentable over Mochizuki et al. in view of Norleen is respectfully requested.

Claims 1 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Kobayashi et al. (U.S. Patent No. 6,214,458).

Mochizuki is cited as expressly disclosing the claimed invention. The Applicant has refuted this premise and the arguments set forth previously apply here as well. Kobayashi et al. is cited to include the teachings of an opaque support. Kobayashi et al. does not mitigate the deficiencies of Mochizuki et al. as a primary reference.

Removal of the rejection of claims 1-16 under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Kobayashi et al. is respectfully requested due to the inappropriateness of the rejection.